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Abstract

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PI Title:

Project Title: NURSE STAFFING AND QUALITY OF CARE

Abstract: *The Institute of Medicine committee on the adequacy of Nurse Staffing concluded that there is insufficient research linking nurse staff patterns and patient outcomes. Subsequently, a collaborative research agenda was released by the National Institute of Nursing Research, Agency for Health Care Policy and Research, and the Division of Nursing of the Health Resources and Service Administration. This research project was designed in response to that research agenda, "Nurse Staffing and Quality of Care in Health Care Organizations". The purpose of the study is to determine the relationship between nurse staffing patterns and quality of care in hospitals. A sample of 300 patient care units (200 medical/surgical and 100 intensive care) will be obtained from 50 community hospitals in the US. Nurse staffing indicators, at the patient care unit level, include the number of hours of care from all nursing personnel, i.e. RNs, LPNs, nursing assistants (Total Hours) and the proportion of the total hours of care from delivered by professional nurses, the RNs (Staff Mix). Patient care quality will be measured using unit rates of adverse occurrences; e.g., medication administration errors, skin breakdown, patient falls, and nosocomial infections. Data will be collected for each quarter of 2000. The levels of nurse staffing variables and the changes over the 4 quarters will be described. The rates of occurrences and the levels of nurse staffing will be described within unit type (medical/surgical and intensive care). Hierarchical modeling procedures will be used to determine the relative effects of hospital level and unit level characteristics and test the hypotheses: Higher Staff Mix will be associated with higher quality of care after controlling for Total Hours of care, patient severity and unit and organization effects of Staff Mix, patient severity, and unit and organizational characteristics, and there will be an interaction effect between Staff Mix and Total Hours. In addition, the characteristics of*

nurses (e.g. education and experience), quality independent of nurse staffing will be determined. The personnel costs for staffing at various levels of Total Hours and Staff Mix will be described. This study adds substantially to the current literature by using a large nationwide sample while measuring nurse staffing at the level of the patient care unit, measuring quality of care with indicators more sensitive to nursing care than mortality rates, examining the interaction between total hours of care and staff mix. In addition, hierarchical linear model analysis will assist in the description of the relative effects on the quality of care of hospital level and patient care unit level variables.

Thesaurus Terms:

nursing administration, nursing care evaluation, nursing care quality, nursing skill /technique

*accidental fall, medication error, nosocomial infection, nursing personnel
clinical research, health services research tag, human data*

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